

Review 20 Volumes

1. draw region
2. draw rectangle $\begin{cases} \text{vertical} \\ \text{horizontal} \end{cases}$
3. draw slice
4. set up integral

vert.

horiz.

disk $\int_a^b \pi r^2 dx$

$\int_c^d \pi r^2 dy$

washers $\int_a^b (\pi R^2 - \pi r^2) dx$

$\int_c^d (\pi R^2 - \pi r^2) dy$

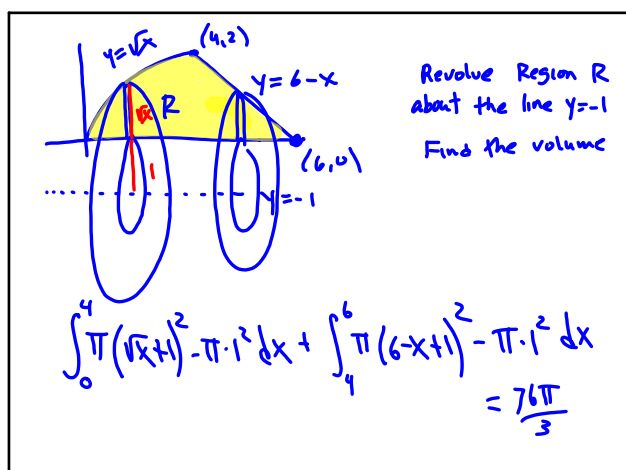
solids of known cross-section

$\int_a^b \text{area of cross-section} dx$
 $\perp x\text{-axis}$

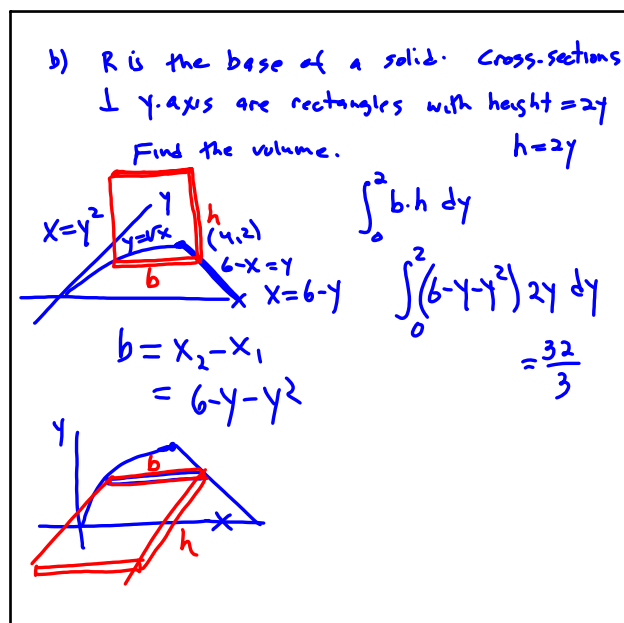
or $\int_c^d \text{area} dy$
 $\perp y\text{-axis}$

Mar 20-8:55 AM

Mar 20-9:54 AM



Mar 20-9:58 AM



Mar 20-10:07 AM